CHAPTER 3

METHODOLOGY

3.1 PURPOSE OF METHODOLOGY

The purpose of the methodology is to achieve the objective of the study. Its start understanding the title of the study and will be end with an appropriate report. The methodology is a guideline of the study to make sure that all the process follows the plan. The study will be done on the molded inductor production for aircoil welding at BI Technologies. The study will cover up the only part of Cpk.

3.2 PROJECT METHODOLOGY

3.2.1 Flow Chart

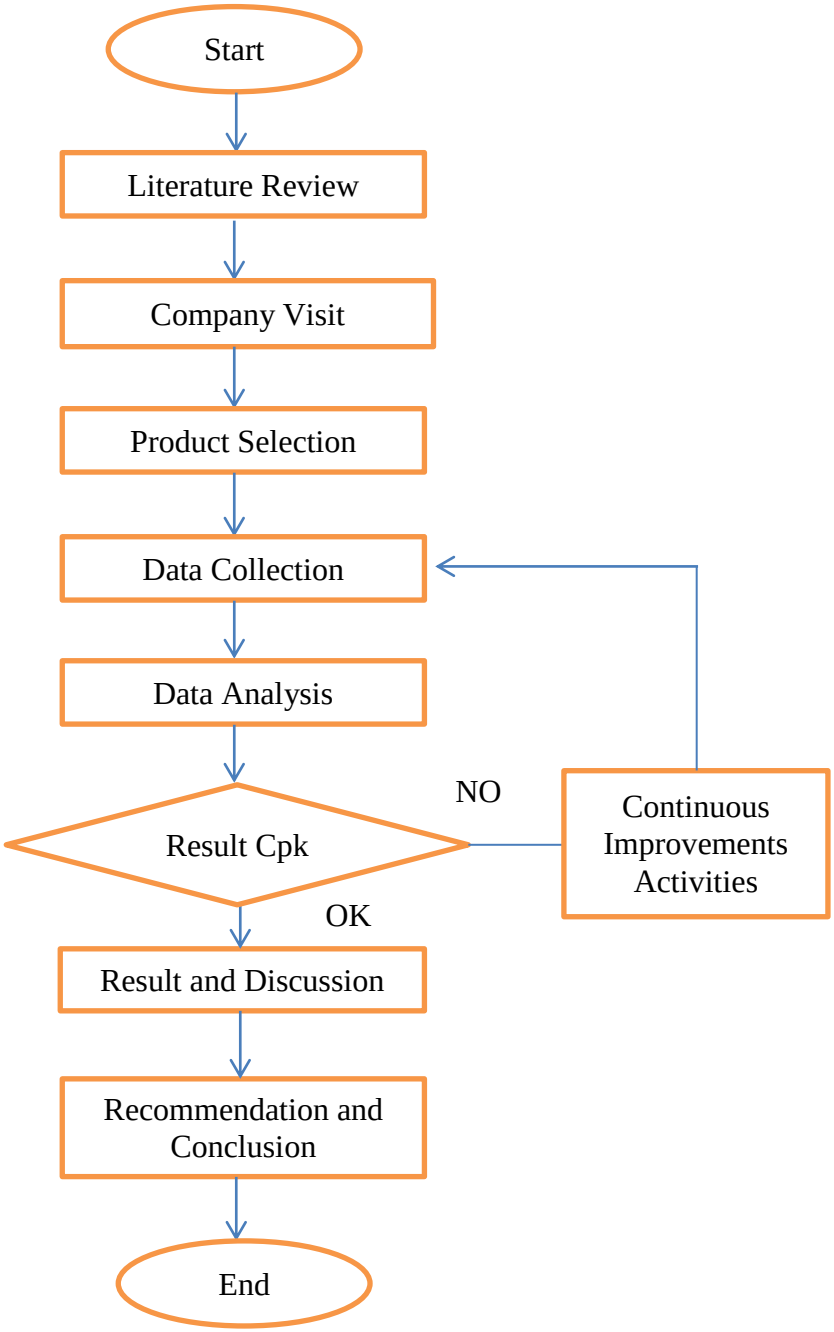

Figure 3.1: Flow Chart of the Project

3.3 COMPANY VISIT

In order to do research in manufacturing industry, application letters was drafted and sent to BI Technologies at Tanjung Api Kuantan. This company gives a positive feedback and they agreed to allow the project to be done at their company.

The appointment of the company visit is done each time before visiting. During the visit, the Quality Department engineer briefly explained the background of the company; types of the products manufactured in BI Technologies, BI Technologies main customers and how the product is produced. After the briefing, a visit to the production line and Quality Control Department were organized by the engineer to get the whole picture of how the parts are produced. A few problems during production were highlighted by the engineer and all the problems were jotted down for analysis purpose.

3.4 PRODUCT SELECTION

After discussion with the engineer who is responsible for the molded process, it is clear that the molded process is one of the critical processes which required highly concern for the quality. The welding for producing the part becomes high focus for production line. Thus, the welding for molded process was taken for further study. The quality performance of the product was observed carefully. Three months data from January until March of the welding molded process was collected from BI Technologies.

In BI Technologies all the collected data samples were directly observed using the histogram as the quality improvement tools. The QC engineer collected the full sample of welding molded from the production line and plot the process capability to determine whether the sample product is within the desired range or not.

According to the QC engineer, the defect of the product usually comes from human mistakes. Normally, when the parts were welded more, it will affect the parts during the assembling later.